

ELECTRONIC EXCHANGE

VOLUME I, ISSUE 4

APRIL 1981

CHICAGO EDITION

\$1.00

NUMBERS

We are continuing to expand our organization. At this time, Electronic Exchange is in 12 locations. (See list of distributors on Page 11.) We are constantly seeking more distributors. If you know of a store that might be interested, give us a call. By the way, we now have a new phone number. Call 537-8555 for information or classified ads.

Speaking of ads, you will probably notice the number of classified ads have decreased significantly. The reason for this is because we are concentrating our efforts on circulation. We figure that if we increase our circulation, the ads will come naturally. Our efforts to obtain advertising will be secondary to the production and circulation of this newsletter. Also, there is a coupon worth \$1.00 towards a classified advertisement in this issue.

We are also seeking individuals to help us maintain and expand this newsletter. If you're interested in joining our sales staff or would like to write some articles for us, please contact us.

In the short time that we have been in circulation, we have made considerable progress. The reason for this, we feel, is that we are producing a quality product, and we are trying to improve it with each issue. Your comments and suggestions are always welcomed.

We have finally compiled the results of a survey taken on our initial flyer. We asked people to fill out a form and check their areas of interest. Approximately 95% of the people checked more than one area.

ELECTRONIC EXCHANGE
ELECTRONIC EXCHANGE
ELECTRONIC EXCHANGE

THIS ISSUE:

RCA's Projection TV New Products from Atari Computer:

Another World Local BBS Numbers
What is Modern? BBS Log Form

Coupon-Worth \$1.00 Inside

The results are listed below:

<u>AREAS OF INTEREST</u> (Electronic Only)	<u>PERCENTAGE</u>
AUDIO	28.3
VIDEO	48
COMPUTER	82.5
HAM RADIO	29
GAMES	25.7
GADGETS	41

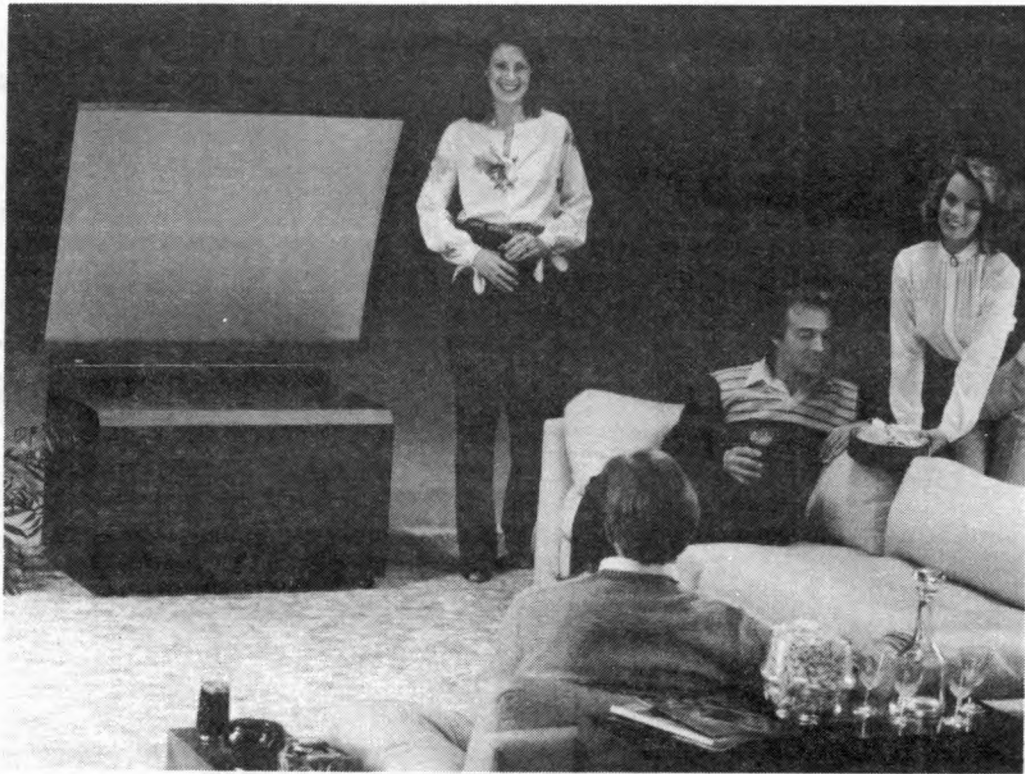
One other project that we are considering is our own Computer Bulletin Board. When ads are called in and payment received, we will place your ad on our computer. Also bulletins and special events could be listed. Of course, it will also be printed in the next available issue. Other computer owners can call into the system and read the ads and bulletins.

HELP

In order for our newsletter to continue to keep you informed on the latest electronic news, we need all the help we can get.

Any information relating to local, public service announcements, meetings (computer, ham, etc.), shows & exhibits, demonstrations and service clinics are most welcomed.

Send information to the attention of the editor at our mailing address or call at 312-537-8555.



RCA's PROJECTION TV

President Arnold T. Valencia of the RCA Sales Corp. told a news conference that RCA's planned major marketing effort this year will help shift projection television "from being a curiosity in public places to an important new video product for the home."

RCA will introduce a one-piece projection TV with a 50-inch screen for the home. Mr. Valencia said the Model PFR100R is designed to be 50 percent brighter than current best selling projection systems.

Because of limited brightness, most projection TV's should be viewed in a darkened room with the viewer almost directly in front of the screen. The PFR100's picture is so bright, you can watch it in normal room light. In fact, the set's 120 ft. lamberts peak brightness makes it seven times brighter than the maximum recommended brightness for movie theater screens.* With a bright picture comes a wide viewing angle so you can sit to the side and still see clear sharp color.

A special "Comb" filter detail processor is combined with a 100% solid state chassis for outstanding performance and picture sharpness. This special circuitry helps screen out interference and purify the color. The result is excellent color separation, high resolution and a noticeably crisp picture.

The PFR100 receives its image from a precision-engineered 3-tube video projection

system. There's a separate 7-inch video projection tube for each of the three primary colors: red, blue and green. Each tube projects its image through a high-quality 3-element lens assembly onto a highly-polished "first surface" mirror in the set's door. From the mirror, the three projected images are reflected onto the PFR100's screen, where they overlap to form a big, full-color, movie-like picture. The aluminized fiberglass screen is specially contoured to assure optimum image reflectivity and an excellent viewing angle. The screen is even washable and can be easily cleaned using a soft cloth.

The PFR100's two 2-inch tweeters and two 5-inch woofers combine with two amplifiers to produce a big, bold TV sound (10 watts per channel). With just the flip of a switch, you can hear true stereo sound from an external stereo source. A continuous tone control enhances treble or bass, and a balance control lets you adjust the balance of sound from the left and right speakers. Two special speaker connectors on the back of the set allow you to hook up a pair of external speakers with the PFR100's sound system.

* American movie theatre screen brightness standard--16+2 foot--lamberts as recommended by the Society of Motion Picture and Television Engineers, Inc. (SMPTE).

FEATURES

- External audio/video inputs:

Let you connect the RCA Projection TV with any standard NTSC signal source such as a VCR, video camera, home computer, or video game. A special control switches between "off-air" broadcasts and external components.

- Electronic touch-button tuning:

Provides direct access to up to 12 VHF and UHF channels via a control panel at the set. An electronic varactor tuner helps provide reliable operation and long life because there are no moving parts to get dirty or wear out.

- Illuminated channel indicators:

Whether a station is chosen manually or by remote control, the channel number will appear in an illuminated display below the screen. Even from across the room, the channel number is clearly visible.

- One-button Automatic Color:

Automatically presets the color level and tint range, so you don't have to bother.

- Automatic Fine Tuning:

Pinpoints and holds the correct broadcast signal on each active channel. Just choose the channel you want to watch, and it's fine-tuned automatically.

- Full-function remote control:

Turn the picture on and off, adjust the volume or mute it completely, and change channels—all from across the room. The infrared hand unit provides quick and convenient TV tuning with two channel selection options:

- Direct Access lets you instantly choose any of 12 preprogrammed VHF or UHF channels at the touch of a button.
- Channel Scanning lets you search up or down through the entire programmed channel range.

SPECIFICATIONS

Screen: 50-inch diagonal, aluminum over fiberglass.

Screen brightness: 120 ft. lamberts nominal.

Video input: 1Vp-p into 75 ohms.

Audio input: 0.5-1Vrms, 10-k ohm load.

Audio output: 10-W Vrms/Channel into 8-ohm load.

Speakers: Woofers - 5 inch; Tweeters - 2 inch.

Terminals: Video input terminal - 1;
Audio input terminal - 2;
External speaker terminal - 2.

Chassis voltage: 27KV (design average measured at zero beam current)

Power supply: AC 120V, 60Hz

Power consumption: 158W max.

Dimensions (inches): W=43 x H=58 x

D=22 3/4 (door closed)

D=41 (door open).

Weight: 136.5 lbs. (Main body); 26.5 lbs. (Screen).

RCA's design approach was to reduce the overall size of the cabinet. The unit in a closed position is not much greater than that of a 25-inch console. The PFR100, with an over all 1,176 inches of viewable picture, is four times the size of a typical 25-inch (diagonal) direct view TV.

The PFR100 is contained in a walnut wood-grain cabinet and has easy-locking ball casters that allow you to position the unit with ease.

The unit should be available this month at a suggested list price of \$3200.

DOW JONES AND ATARI COMPUTERS

Dow Jones & Co., Inc., New York, N.Y., has announced plans to provide its New/Retrieval Service for owners of Atari personal computers.

The News/Retrieval Service provides current and historical stock price quotations, business and financial news and information on command through personal computers and standard time-sharing terminals.

Dow Jones and Atari also have begun a joint software package to be called the "Dow Jones Investment Manager" which allows the user to store, analyze and graph portfolio and investment information retrieved from the New/Retrieval Service. The Dow Jones Investment Manager will be available through Atari personal computer dealers later this year.

Atari, Inc., a wholly owned subsidiary of Warner Communications, Inc., New York, is a designer and manufacturer of personal computer software and peripherals.

COMING IN JUNE!

CONSUMER ELECTRONICS SHOW

The Consumer Electronics Show will be held at McCormick Place on May 31st through June 3rd. More information next issue.



ATARI'S REMOTE-CONTROL VIDEO SYSTEM.

NEW PRODUCTS FROM ATARI

From the people who created the first commercial video arcade game "PONG", Atari introduces two new products: COSMOSTM and the first Remote Control Video Computer SystemTM.

REMOTE CONTROL SYSTEM

The new Remote-Control Video Computer System from Atari features two quick-action, hand-held game controllers that allow players to move about free of cumbersome wires.

The new system combines sleek and futuristic styling with advanced technology. It has been designed to make video games more enjoyable, convenient and easy to use than ever before.

The remote controllers, which are a combination of joystick and paddle controllers, respond quickly and easily to a person's touch. Players can select, play, and reset games from any part of the room. A LED indicator is lit when the power in the controllers is switched on. This is a reminder to turn off the controllers and save the battery when the units are not in use.

The game console has an attractive design to complement any decor. It features

LED-lighted, fingertip-touch control panel. A hinged plastic dust cover provides convenient storage for the remote controllers, and there is additional space under the console to store the power supply and the TV connection cables.

The unit is compatible with all standard Atari game cartridges and can accommodate wired accessory controllers to allow up to four persons to participate in multi-player games.

The complete system consists of a game console, two remote controllers, an Air-Sea Battle game cartridge, and an AC power supply. Optional paddle, keyboard and driving controllers and additional joystick controllers can be used when plugged into the console.

The Remote-Control Computer System is priced at \$299.95 and is scheduled for delivery in August.

COSMOSTM

CosmosTM - The Third DimensionTM is a new table-top programmable game from Atari that brings the magic and excitement of holography to the world of electronic games.

Cosmos, the first programmable game of its kind, combines breathtaking, three-dimensional HolopticTM images, sophisticated LED game play and a large variety of inno-



COSMOS--THE THIRD DIMENSION.

vative sounds. The system is programmable, and initially eight game cartridges will be available: AsteroidsTM, Superman*, Football, Road Runner**, DestroyerTM, Space Invaders and Outlaw^R.

Holo optics is Atari's exclusive holographic technique for creating three-dimensional light images of great detail and realism on a two-dimensional plane. Until Cosmos, holograms had not been produced in large volume and were expensive to manufacture. After years of research and development, an Atari engineering team developed a workable process to mass produce flat-surface holograms.

Cosmos is operated by inserting a game cartridge into the slot provided which positions a holographic image in front of an array of LEDs. The player sees a green three-dimensional image superimposed over red game figures (cars, missiles, gun-fighter) illuminated by the LEDs.

During game play, the red figures move about the illuminated screen under computer and player control. There are two separate holographic images on each game cartridge. At critical moments during a game, the three-dimensional image changes to indicate an outcome or some new aspect of game play.

Each game can be played by either one player against the computer or two players pitted against one another. And there are two different skill levels for each player

and each game.

Cosmos features two built-in micro-processors--one to control the sophisticated, exciting LED game play, the other dedicated entirely to provide the most innovative and realistic sound effects available in an electronic game.

Cosmos - The Third Dimension is packaged with an AC power supply and an Asteroids game cartridge. Suggested retail price of the game is \$99.95 and first delivery is estimated for August. Game cartridges will be priced under \$15.

These new units are products of the Atari Consumer Electronics Division. Atari, Inc., is a Sunnyvale, California, based manufacturer of home video games, coin-operated video games and personal computers, peripherals and software. The company is a wholly-owned subsidiary of Warner Communications, Inc.

* Trademark of DC Comics, Inc. 1979

** Indicates trademark of Warner Bros., Inc.

YOUR COMMERCIAL AD COULD BE HERE

ANOTHER WORLD

I thought I had everything figured out. I thought I knew my computer fairly well. I even got tired of adventure games.

Then a friend of mine (I think he's a friend) said, "Don't you have a modem?" "No," I replied, "do I need one?"

After a long, fascinating discussion, I decided to purchase one. Armed with the instruction manual and anticipation, I installed it quickly. My friend was also kind enough to give me a list of the bulletin board services (BBS). So I dialed up the first one listed in the area.

After a few minutes on the BBS, I knew I was in another world. There are new abbreviations and codes to learn and master. I fumbled my way through the system managing to read a few messages.

That was the beginning of a new way of communications for me.

What purpose do these bulletin boards serve? There are many answers to this question. Each BBS has its own personality. Some provide a place to leave messages, others are buy, trade and sell systems. You can leave messages for help, make announcements, or meet new friends who share common interests. You can even get free programs down loaded to you. Some systems are set up for video buffs while another provides ski information.

Once you have a modem, you can subscribe to Nationwide services such as the Source and Micronet. Through these systems, you can have access to wire services, stock market and financial reports, do correspondence via electronic mail, and make travel arrangements. They also offer educational programs, games, mainframe memory storage, and you can program in BASIC, FORTRAN, COBOL, & RPG without expanding your present system.

If you're bored with your computer, install a modem; you won't be disappointed. There's no doubt that the modem will be a vital link for you in the future.

By the way, my friend is Mark Wehmhoefer and he operates the FORUM 80 for E. B. Garcia. Mark has somehow compiled a list of on-line bulletin board systems throughout the nation, and he updates it constantly.

This list will be available on the new Mundelein RBBS, once all the bugs are worked out. The list alone occupies more than 27k memory. A list of current BBS's in Chicago is provided on the Forum 80. You can access this by using the 0 command.

The following excerpt is a list of BBS's in the greater Chicagoland area contributed by Mark. (The list is accurate as of this printing.) Following the list of BBS's is a form which may help when calling these systems. You have our permission to copy the form.

Thanks for the list, Mark.

WHAT IS A MODEM?

The word modem is an acronym for MODulator/DEModulator. It converts data from a form that is capatible with data processing equipment to a form that is compatible with transmission facilities and visa versa. In other words, it allows terminal/computer and computer/computer communication over a telephone circuit.

The modem does this by converting the binary data (0's and 1's) from the computer to analog signals that can be transmitted through telephone equipment.

The most popular modems are asynchronous and operate at 110 and 300 bits per second (baud rate). Asynchronous operation means that the data can come at anytime and is not related to any system timing.

The common modulation technique for asynchronous modems is called frequency shift keying (FSK). In this method, a 0 is defined by a particular frequency, and a 1 is defined by another frequency (usually lower).

Other terms involved in telephone/data communication are simplex, full duplex and half duplex. These terms define the direction in which the data is transmitted. Simplex is operation in only one direction. (An example of simplex would be TV operation.)

Full duplex means that data is transmitted in two directions at the same time. (A telephone conversation is a good example of full duplex operation.)

In half duplex operation, data is transmitted in only one direction at a time. (An example of this is a two-way radio, where only one person can talk at a time.)

When talking to a BBS or a time-sharing system such as the SOURCE, you must be in full duplex. When talking to another computer, you must be in half duplex.

The usual arrangement for a data word is another factor when setting up your modem. I've found that an 8 bit word length no parity, 1 stop bit is the correct configuration for most operations.

CHICAGOLAND ON-LINE BULLETIN BOARD SYSTEMS

<u>Phone No.</u>	<u>System Type</u>	<u>Name & Location</u>
234-9257	CP/M	Calamity Cliffs Comp. Center Lake Forest
255-6489	CLAH-NET	Computerland (New Format) Arlington Heights
289-1198	ABBS	NIBS (24 hr) Streamwood
291-1619	ABBS	Ski Machine/Mothers (Video Info) Northbrook
295-6926	ABBS	NIAUG (24 hr) Lake Forest
337-6631	ABBS	Computer Room, Chicago
359-9450	NBBS	Public BBS (24 hr) Games (10 pm to 10 am CST) Palatine
384-4762	RAPM	Remote Apple CP/M (24 hr), Chicago
420-7995	ABBS	IL. Microcomputers, Inc. Naperville
475-4884	ABBS	Gamemaster (24 hr), Evanston
537-7063	ABBS	C.O.D.E. (consultants) (24 hr) Wheeling
545-8086	CBBS	Ward & Randy (24 hr), Chicago
743-8176	FGS/RP	Games (24 hr), Chicago
782-8180	FORUM-80	EBG & Associates (24 hr), Chicago
789-0499	AIMS	Janus Software Group, Hinsdale
859-2622	ABBS	Wescom, Aurora
882-9237	ABBS	Electronic Industries, Roselle
941-9009	ABBS	Computer Centre, Oak Brook
949-6189	CP/M	TC-80, Mundelein
967-0453	ABBS	Compushop, Morton Grove
973-2227	ABBS	Rodgers Pk., Chicago

BBS LOG

BBS Name: _____ Phone No.: _____
City/State _____ Hours: _____
System Type: _____ Passwords: _____ Auto Log-On: _____
Special Features: _____

[illegible]

TEN COMMANDMENTS
OF ELECTRONICS SAFETY

1. Beware of the lightning that lurks in an undischarged capacitor lest it cause thee to be bounded upon thy backside in a most ungentlemanly manner.
2. Cause thou the switch that supplies large quantities of juice to be opened and surely tagged, so thy days may be long on this earthly vale of tears.
3. Prove to thyself that all the circuits that radiateth and upon which thou worketh are grounded lest they lift thee to high frequency potential and cause thee to radiate also.
4. Take care thou useth the proper method when thou taketh the measure of high voltage circuits so that thou doth not incinerate both thee and the meter, for verily though thou hast no account number and can be easily replaced, the meter doth have one and as a consequence bringeth much woe upon the supply department.
5. Tarry thou not amongst those who engage in intentional shocks for they are surely nonbelievers and are not long for this world.
6. Take care thou tampereth not with interlocks and safety devices, for this will incur the wrath of thy seniors and bringeth the fury of the safety officer down upon thy head and shoulders.
7. Work thee not on energized equipment, for if thou doeth, they buddies will surely be buying beers without thee and thy space at the bar will be filled by another.
8. Verily, verily I say unto thee never service high voltage equipment alone, for electric cooking is a slothful process, and thou might sizzle in thy own fat for hours on end before thy maker sees fit to end thy misery and drag thee into his fold.
9. Trifle thee not with radio-active tubes and substances lest thou commence to glow in the dark like a lightning bug.
10. Commit thee to memory the works of the prophets, which are written in the instruction books, which giveth the straight dope and which consoleth thee, and cannot make mistakes.

A NOTE ON THE "BUG"

You may have seen the "Bug" advertised on TV. The following is an excerpt from the Vertronix brochure.

"The Bug uses sonic sensors to hear sound. These sonic sensors can actually "hear" the differences between normal everyday sounds and the sounds that mean danger to you and your family. All burglars, no matter how quiet, make noise in the process of breaking and entering—they must break a window, tamper with a lock, or splinter wood around a door to get in.

These acts of breaking and entering have sounds with unique frequencies, and the Bug is designed to react to them. These sounds occur while the burglar is still outside."

The brochure aroused my curiosity, and I contacted Vertronix in Schiller Park. When I told them I was interested in writing an article on the Bug and had a few questions about it, I was politely told that they have their own marketing plans and would not like the free publicity.

If you're interested in the Bug, you can contact them at 678-0620. I believe they can also arrange for a free demonstration at your home.

ebg
& ASSOC

EMMANUEL B. GARCIA, JR.
& ASSOCIATES
203 N. WABASH
CHICAGO, ILLINOIS 60601
PHONE (312) 782-9750

**NOW IN ITS THIRD YEAR OF
SPECIALIZING IN PRODUCTS
RELATED TO THE TRS-80***

- Dealer of quality software and hardware—we sell **only** the best, proven items.
- Sponsor of CHICATRUG—monthly learning sessions for TRS-80 users.
- Publisher of "CHICATRUG News," monthly publication for TRS-80 users.
- Sponsor of the FORUM-80 of Chicago, a 24-hour computerized bulletin board.
- Author of "Pensionmaker," the revolutionary defined benefit pension system running on the TRS-80 Model I where other pension actuaries are using mainframes.
- Repair facilities (90-day warranty on new equipment and 30 days on used).

E.B.G. & Associates is NOT affiliated with Tandy Corporation or Radio Shack.

*TRS-80 is a trademark of Tandy Corporation.

CHICAGOLAND COMPUTER GROUPS

(New members always welcomed)

ATARI

Chicago Atari user group. 1 North Wacker, Room 214. Call Larry Hitz at 727-4206 (weekdays) and 323-8962 (weekends).

CACHE

Chicago Area Computer Hobbyist Exchange. Special Interest Groups for: PET, TRS-80, INTERACT, PASCAL, LSI-11, 68XX, BALLY, FORTH, NORTHSTAR, APPLE, CPM/COMM -- Meet 3rd Sunday each month at 3300 N. Campbell (DeVry Tech), at 11:00 A.M. Call at 849-1132.

CHICATRUG

Chicago TRS-80 users group -- Meet 3rd Wednesday each month at 203 N. Wabash, Room 110, at 6:00 P.M. Call 782-9750, 782-8180 (modem).

COUNTY OF LAKE APPLE CLUB

Meet 3rd Thursday of each month at Computerland of Mundelein, 1500 South Lake St. at 6:30 P.M. Call Steve at 367-5015.

NIAUG

Northern Illinois Apple Users Group. Meet 1st Saturday of each month. Harper College, Building E, Room 106. Call Dave at 295-6078 or 295-6926 (modem).

SOUTH SUBURBAN TRS-80 USR's GROUP

Meet 3rd Saturday of each month. Call Bill at 841-5453.

NOTICE

We are trying to compile a list of all computer and amateur radio groups in the greater Chicagoland area. If you would like your group listed or have information to share, contact us at 537-8555.

COUPON

§ THIS COUPON IS WORTH \$1.00 TOWARD CLASSIFIED ADVERTISEMENTS IN THE ELECTRONIC EXCHANGE.

§ NO OTHER REDEMPTION IS INTENDED, AND NO REFUNDS WILL BE MADE.

MAY 5th, 1981

COMPUTER

NEW EPSON MX-80 PRINTER \$500, D.C. HAYES MODEM 310, PLUS ALL MOUNTAIN COMPUTER, NEC SPINWRITER, TREDCOM, ATARI, C. IOTH. AND PERSONAL SOFTWARE PRODUCTS AT COST + 10%. CALL 367-5015

APPLE COMPUTER SYSTEM; DISK DRIVE, BMC GREEN PHOSPHOR MONITOR. ALL NEW IN BOX. CALL SAM M-F, 9-5 AT 530-1125 \$2460

OCI WORD PROCESSOR WITH QUME PRINTER UNLIMITED TAPE STORAGE & MEMORY WILL INTERFACE TO TRS-80, ORIGINALLY \$7000 -- SELL \$1600. TWO AVAILABLE 474-7586 OR 495-1806

EPSON MX-80 PRINTER NEVER USED \$525 CALL 627-8112 EVES.

8-INCH CDC FLOPPY DISK, READ & WRITE ELECTRONIC HEAD & DOUBLE DENSITY, \$475 OR BEST OFFER. 577-8832 AFTER 7 PM.

832 TEKTRONIX DATA COM TESTER-ALL OPTIONS-LIKE NEW \$1500 OR BEST OFFER 577-8832 AFTER 7 PM.

MISCELLANEOUS

IC CHIPS & MISC. PARTS, 15 FT. CB ANTENNA, ANTIQUE TV, AM CAR RADIO, TECHNICS TURNTABLE, SCOPE & OTHER STUFF. MUST SELL. MAKE OFFER CALL JIM: 870-0188

IBM SELECTRICS: TWO 15-IN. BUILT INTO TWO SHARP CONSOLES (approx. 3 to 4 ft. wide). ONLY \$300.00 EA. 474-7586 OR 495-1806

PHONEMATE REMOTE TELEPHONE ANSWERING MACHINE. NEW IN BOX, WITH WARR. CALL 884-0380 WEEKENDS ONLY \$175

SERVICES

TELEVISION TUNERS AND MODULES-(ETS)-ECONOMY TUNER SERVICE. PHONE 282-3939, 4901 NO. ELSTON AVENUE CHICAGO, IL 60630

VIDEO

SANYO B&W REEL-TO-REEL (TIME STUDY)
VIDEO RECORDER WITH APPROX. 30 REELS
OF PRERECORDED TAPE TO RIGHT BUYER
ORIG. \$2300 -- SELL \$700 CALL
593-0506

WANTED

CASH, BUYING SINGLE & MULTI-TURN SUR-
PLUS POTENTIOMETERS; REPLACEMENT OR
PULLOUT UNITS. PHONE OR WRITE SOL,
6485 RACQUET CLUB DR., LAUDERHILL,
FLORIDA 33319 --- (305)-735-9389

Electronic Exchange is now available at the following stores:

COMPUTERLAND, 1500 South Lake, Mundelein, IL (949-1300)
COMPUTERLAND, 9511 Milwaukee, Niles, IL (967-1764)
DATA DOMAIN, 1612 E. Algonquin Road, Schaumburg, IL (397-8700)
EDI, 4900 Elston, Chicago, IL (283-4800)
ERICKSON COMMUNICATIONS, 5456 N. Milwaukee, Chicago, IL (631-5181)
HEATHKIT ELECTRONICS, 3462 Devon Ave., Lincolnwood, IL (583-3920)
MIDWEST MICROCOMPUTERS, 708 South Main, Lombard, IL (495-9889)
OLSON ELECTRONICS, 4101 Milwaukee Ave., Chicago, IL (545-7336)
OLSON ELECTRONICS, 6231 Dempster, Morton Grove, IL (966-6700)
645 ELECTRONICS, 645 Wheeling Road, Wheeling, IL (537-0280)
SPECTRONICS, 1009 Garfield, Oak Park, IL (848-6777)
TEAM ELECTRONICS, Rt 62 & Lake Cook Road, Algonquin, IL (658-8600)
TRI-STATE ELECTRONICS, 200 W. Northwest Hwy., Mt. Prospect, IL (255-0600)

ELECTRONIC EXCHANGE COMMERCIAL AD RATES (PRE-PAID)

— DISPLAY AD RATES:

The prices listed below are for camera-ready line work only.

SIZE	INCHES	1 ISSUE	3 ISSUES
FULL PAGE	8x10	\$100.00	\$ 80.00
HALF PAGE	8x5	\$ 60.00	\$ 48.00
1/3 PAGE	8x3.3	\$ 48.00	\$ 38.40
1/4 PAGE	4x2.5	\$ 36.00	\$ 29.00

Prices for photo work and preparation for artwork depend on the quality of the originals, the amount of copy, and number and type of illustrations.

CALL: 537-8555

NOTICE

We at the ELECTRONIC EXCHANGE intend to provide our readers with the lowest possible cost media for information exchange and advertising. With this goal in mind, our articles are based on facts and actual experiences and are accurate to the best of our knowledge.

ELECTRONIC EXCHANGE reserves the right to refuse ads that do not conform to our standards.

Electronic Exchange is published monthly by Electronic Exchange, P.O. Box 119A, Wheeling, Illinois, 60090. One-year subscription rate: U.S.A., \$10. All rights reserved.

Editor: Hank Chiuppi

Publisher: Harold Milligan

Sales & Marketing: Position Open

This publication may not be reproduced without the express written permission of the publishers of Electronic Exchange.

SUBSCRIPTION/AD FORM

DEADLINE FOR CLASSIFIED ADS IS THE FIFTH OF EACH MONTH

CLASSIFIED ADS RUN FOR TWO MONTHS UNLESS WE ARE NOTIFIED
BY PHONE. CALL 537-8555 by the 5th of each month to cancel ads. Please add
the category for your ad and print clearly.

— Enclosed is \$9.00 for a 1 year subscription.

— Enclosed is _____ for my ad.

CLASSIFIED AD RATES: 20 cents/word -- \$2.00 min.

- Subscribers pay half/price (10 cents/word) - \$1.00 min.

NAME _____ PHONE _____

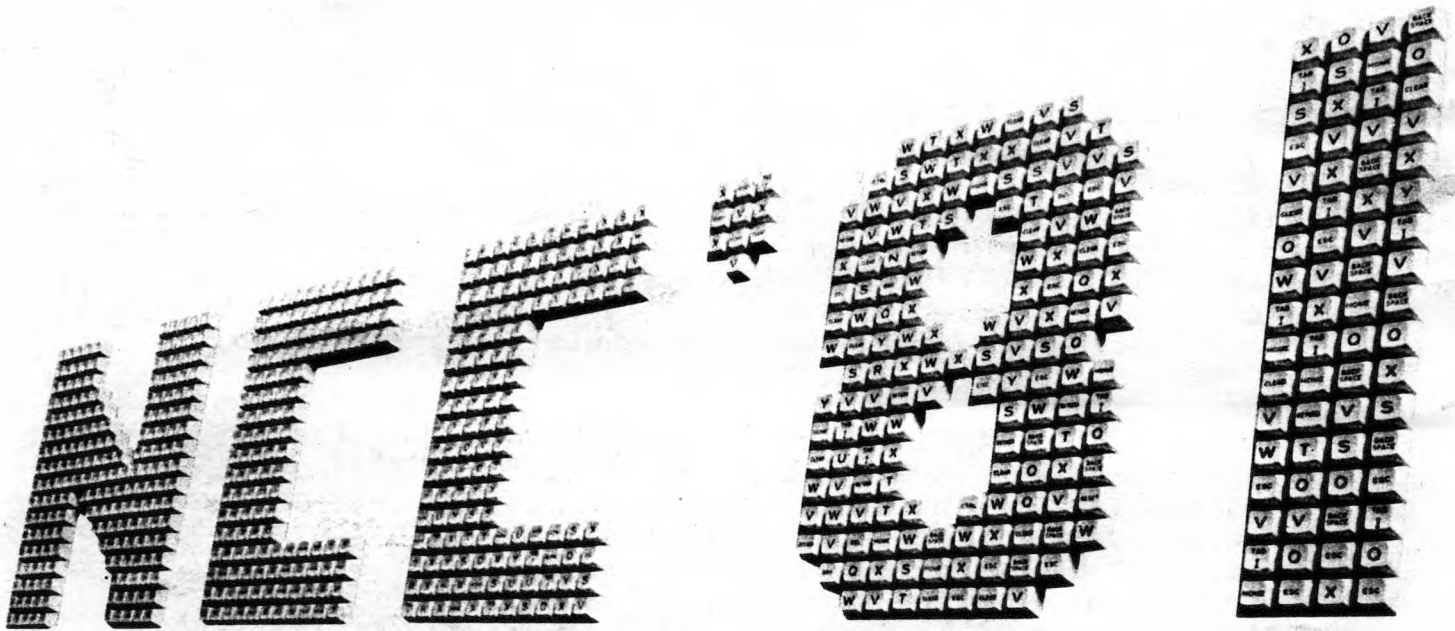
AD CATEGORY _____

ADDRESS _____ OCCUPATION _____

CITY _____ STATE _____ ZIP _____

_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

HOW DID YOU HEAR ABOUT ELECTRONIC EXCHANGE? _____



NATIONAL COMPUTER CONGRESS

Over 60,000 people are expected to attend the National Computer Congress this year at McCormick Place.

Almost all the major computer companies will be there to show their products. This year, personal computer exhibits are included with the main exhibits. Japanese manufacturers will also be there introducing their lines of personal computers.

McCormick Place

on the lake

chicago, illinois 60616

MAY 4-7, 1981

- PERSONAL COMPUTING EXHIBITS
- PROFESSIONAL DEVELOPMENT SEMINARS
- EXHIBITS OF OVER 200 MANUFACTURERS

CALL 791-6127 for more information.



P.O. Box 119A

Wheeling, IL. 60090

INTRODUCTORY PRICES